

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) In an arrangement with a plurality of nodes making up a multiple hop wireless communication network for routing data packets over transmission paths, A-a method for efficient routing in a-said multiple hop wireless communication network, characterized in that data packets are routed over transmission paths using the following steps said method comprising:

providing link status information to a link status monitor by acquiring link status quality between nodes in the network;

the link status monitor updating a routing element with said link status information;

the routing element determining at least two possible routes with essentially similar link quality status for said-a data packet; and

the routing element routing said data packet via the at least two determined routes.

2. (Currently Amended) The method according to claim 1, further comprising ~~the step of combining said data packets at a destination node.~~

3. (Currently Amended) The method according to claim 1 further comprising, ~~the step of replacing one of said data packets with parity bits for error detection and error correction purposes.~~

4. (Currently Amended) The method according to claim 1, ~~characterized in that wherein~~ said wireless link ~~comprise the step of using is~~ a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

5. (Currently Amended) The method according to claim 4, ~~characterized in that wherein~~ said transmission system ~~comprise the step of using a transmission system from is~~ one or several of the following radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF, Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

6. (Currently Amended) A system for efficient routing in a communication network having a plurality of nodes, each node comprising:
link status acquiring means for acquiring information about link status between neighboring nodes;
updating means for updating routing means with said link status information;

determination means using said link status information for determining at least two possible routes with essentially similar link quality status for routing of a data packet; and

routing means for routing said data packet via said at least two determined routes.

7. (Currently Amended) A system according to claim 6, wherein communication between said nodes is wireless.

8. (Currently Amended) A system according to claim 7, wherein the communication network is an ad hoc network.

9. (Currently Amended) The system according to claim 6, further comprising the step of replacing means for replacing one of said data packets with parity bits for error detection and error correction purposes.

10. (Currently Amended) The system according to claim 7, ~~characterized in that wherein~~ said wireless communication ~~comprise~~ takes place over a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

11. (Currently Amended) The system according to claim 10, ~~characterized~~
~~in that wherein~~ said transmission system is one or several of the following
radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF,
Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

12. (Currently Amended) A node in a communication network having a
plurality of nodes, said node comprising:
processing means for processing network control information;
storing means for storing network control information;
transmission means for transmitting data packets;
link status acquiring means for acquiring link information comprising
link status and link quality between neighboring nodes;
determination means using acquired link information for determining at
least two routes with essentially similar link quality status to a destination for
routing of a data packet; and
routing means for routing said data packets via said at least two
determined routes.

13. (Currently Amended) The node according to claim 12, wherein
communication between nodes is wireless.

14. (Currently Amended) The node according to claim 13, wherein said communication network is an ad hoc network.

15. (Currently Amended) The node according to claim 12, further comprising the step of replacing means for replacing one of said data packets with parity bits for error detection and error correction purposes.

16. (Currently Amended) The node according to claim 12, ~~characterized in that wherein~~ said wireless communication ~~comprise~~ takes place over a transmission system based on electromagnetic radiation with a frequency in the range of 100 kHz to 100 PHz.

17. (Currently Amended) The node according to claim 16, ~~characterized in that wherein~~ said transmission system is one or several of the following radio standards: IEEE 802.11, IEEE 802.15, IEEE 802.16 HiperLAN, HomeRF, Bluetooth, IR, UWB, JTRS, 3G, GPRS, and EDGE.

18. (Previously Presented) A wireless communication network comprising a system according to claim 6, comprising one or several nodes.

19. (Cancelled)